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CIS

WHAT OTA IS
WHAT OTA DOES
HOW OTA WORKS

CONGRESS OF THE UNITED STATES
Office of Technology Assessment
Washington, D.C. 20510

Office of Technology Assessment

Congressional Board of the 99th Congress

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Office of Technology Assessment (OTA)

WHAT OTA IS

OTA is a nonpartisan analytical support agency that serves the United States Congress by providing objective analyses of major public policy issues related to scientific and technological change. **(See p. 5.)**

WHAT OTA DOES

OTA works directly with and for the committees of Congress, providing them with detailed analyses of technological issues and responding to specific questions based on that analysis. **(See p. 7.)**

HOW OTA WORKS

OTA's multidisciplinary staff plans, directs, and drafts all assessments. It draws extensively on the broad technical and professional resources of the private sector, including universities, research organizations, industry, and public interest groups. **(See p. 8.)**

Excerpt From Technology Assessment Act of 1972
Public Law 92-484, 92d Congress, H.R. 10243
October 13, 1972

"FINDINGS AND DECLARATION OF PURPOSE

SEC. 2. The Congress hereby finds and declares that:

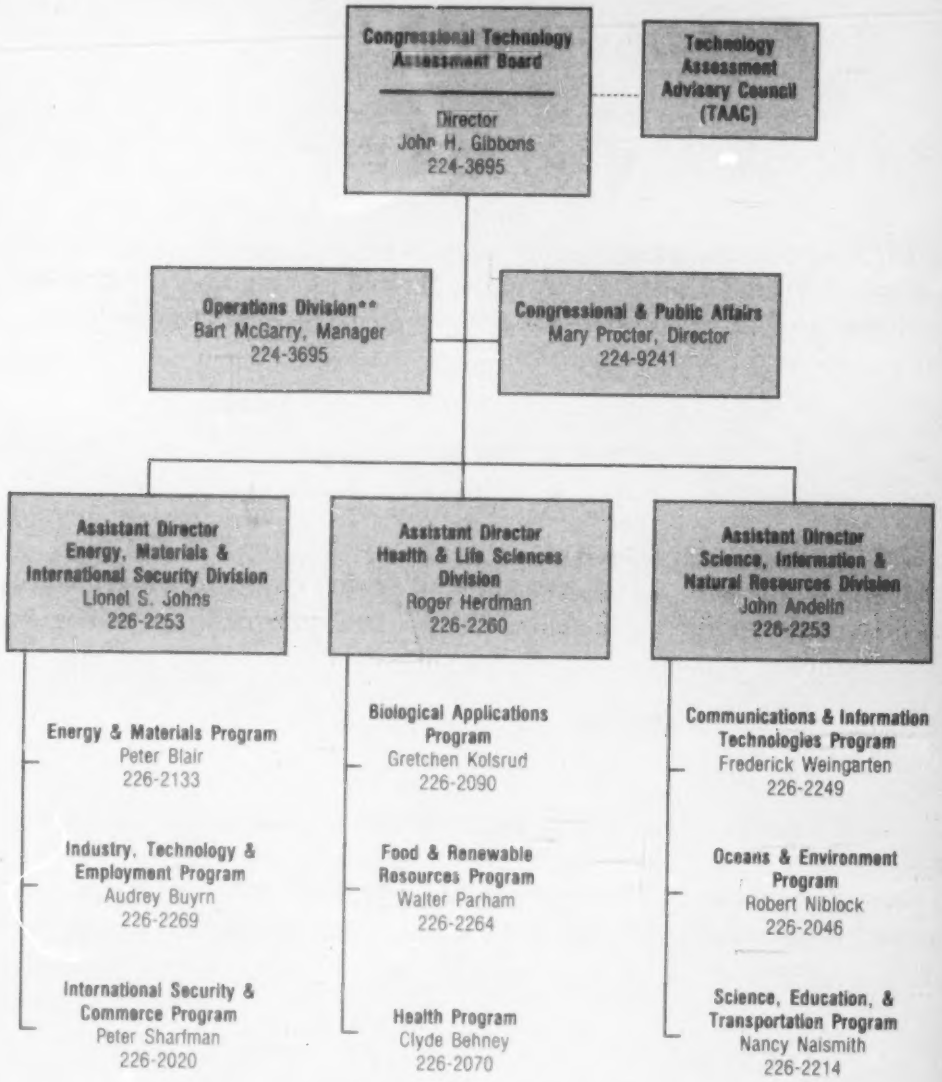
(a) As technology continues to change and expand rapidly, its applications are—

(1) large and growing in scale; and

(2) increasingly extensive, pervasive, and critical in their impact, beneficial and adverse, on the natural and social environment.

(b) Therefore, it is essential that, to the fullest extent possible, the consequences of technological applications be anticipated, understood, and considered in determination of public policy on existing and emerging national problems."

OTA* ORGANIZATION CHART



*Located at 600 Pennsylvania Ave., S.E., Washington, DC.
- Publication requests—224-8996.
- Personnel locator—224-8713.

**Operations Division consists of the following units: Administrative Services, Budget and Finance Office, Information Center, Personnel Office, and Publishing Office.

WHAT OTA IS

The Organization

The Congressional Board

A 12-member bipartisan congressional board—six Senators and six Representatives—governs OTA. Board members are appointed by the President pro tempore of the Senate and the Speaker of the House, respectively. A chairman and vice chairman are elected by the board. These posts alternate between the Senate and House in succeeding Congresses. Traditionally, the chairman is a member of one major party; the vice chairman of the other. (Current board members are listed on the inside front cover.)

The Council

An advisory council of 10 public members eminent in science, technology, and education, appointed by the board, advises the board on OTA assessments and other matters. The Comptroller General of the United States and the Director of the Congressional Research Service of the Library of Congress are also members.

The Director

The director is appointed by the board and serves as a nonvoting member. He has full authority and responsibility for organizing and managing OTA's resources according to board policies.

The Staff

OTA has a permanent staff of 100 to 110 professionals whose skills span the spectrum of physical, life, and social sciences; engineering; law; and medicine.

The Task

OTA's job is to provide congressional committees with objective analyses of the emerging, difficult, and often highly technical issues of the late 20th century. It explores complex issues involving science and technology, helping Congress to resolve uncertainties and conflicting claims, identifying alternative policy options, and providing foresight or early alert to new developments that could have important implications for future Federal policy. OTA does not advocate particular policies or actions, but points out their pros and cons and sorts out the facts.

Technology Issues

A growing number of major issues of congressional concern—agriculture, biotechnology, education, energy, environment, health, national security, natural resources, telecommunications, transportation, water, world trade—are complex, highly technical, involve long-range impacts, and contain social and economic factors.

New developments in biotechnology, for example, are focusing attention on the release into the environment of genetically engineered organisms. Questions center on the stability of genetic material inserted into the organisms, on the probability that the inserted genetic material will be transferred to other, nontarget organisms, as well as on the effect of genetic material passed from one organism to another. In order to identify potential hazards, assess risks, and—most important—manage risks, Congress must examine an intricate array of technical realities and uncertainties, scientific knowledge, economic trade-offs, social values, and political judgments.

During the 1960s, Congress found that failure to consider the complexity, cost, breadth, and long-term implications of technology led to policy decisions that were sometimes inappropriate, ineffective, or worse. In deciding such issues, Congress was all too often forced to rely on inadequate, conflicting, and biased information from outside sources. In 1972, after a long series of studies and hearings, Congress authorized the establishment of OTA as a congressional source of information and analysis that is nonpartisan, expert, objective, and anticipatory.

WHAT OTA DOES

Assessment Requests and Approvals

According to the OTA act, requests for OTA assessments may be made by the chairman of any congressional committee acting for himself, or on behalf of a ranking minority member, or a majority of committee members; by the OTA Board; or by the OTA Director, in consultation with the board.

The board decides whether or not OTA will undertake a requested assessment. First, the OTA staff analyzes the request to determine what resources and time it might require and what modifications it might need to suit OTA's resources and congressional needs. The staff then presents a formal proposal to the board, which makes the final decision.

OTA Studies and Proposals

The bulk of OTA's work centers on comprehensive assessments that may take one to two years to complete. OTA also draws upon its past and current work to provide a variety of responses to meet immediate congressional needs, such as briefings, testimony and special reports. These timely responses to committees are based on data in current and past assessments.

In order to assure that OTA's work is responsive to the congressional agenda, OTA provides analyses to committee members and staff, presents testimony at hearings, conducts workshops, and provides special reports based on its ongoing assessments. This close working relationship with committees is the foundation on which the unique value of OTA as a resource to the Congress is built.

HOW OTA WORKS

Program Teams

The OTA staff consists of skilled professionals with advanced training primarily in the physical, life, and social sciences, and engineering. The OTA staff is organized into nine program areas: energy and materials; international security and commerce; industry, technology, and employment; food and renewable resources; health; biological applications; communication and information technologies; oceans and environment; and science, education, and transportation.

These program teams conduct specific assessments, working closely with congressional committee staff. The team develops the overall study plan, performs research; identifies, enlists, and works with the appropriate contractors and consultants; analyzes and integrates their work; and develops the final report. In cases where the subject spans more than one program, a team of professionals from these areas is created.

Panels

Throughout each project, OTA uses advisory panels of experts on a particular subject as a way of ensuring that reports are objective, fair, and authoritative. Such panels include not only distinguished scientists and engineers, but also affected and interested parties from labor, industry, the academic community, public interest groups, State and local government, and the citizenry at large. These panels help to shape OTA studies by defining them initially, critiquing them while in process, and reviewing the reports before they are released.

Private Sector Involvement

OTA depends on the private sector as a source of expertise and perspectives while an assessment is in progress. Contractors and consultants are drawn from industry, universities, private research organizations, and public interest groups.

OTA also works to ensure that the views of the public are fairly reflected in its assessments. It involves the public in many ways—through advisory panels, workshops, surveys, and formal and informal public meetings.

These interactions help OTA to identify and take into account contrasts between the perspectives of technically trained and lay citizens.

Release of Reports

After a completed assessment has been approved by the Director, copies of the formal report are sent to the Technology Assessment Board for its review and authorization for release. If a majority of the board does not object, the report is forwarded to the requesting committee(s), summaries are sent to all Members of Congress, and then the report is released to the public. OTA assessments are published by the Government Printing Office and are frequently reprinted by commercial publishers.

Research Coordination

OTA works with the other congressional support agencies—the Congressional Budget Office, the Congressional Research Service of the Library of Congress, and the General Accounting Office—in an interagency Research Notification System. Its purpose is to coordinate activities and exchange information to avoid duplication of effort. Representatives of each organization meet regularly, and biweekly status reports are published in a central directory of congressional research activity.

Similarly, OTA stays in touch not only with the published work of analysts and researchers in Federal executive and legislative branch agencies and throughout the country, but also with their current activities. Thus, OTA can frequently obtain valuable unpublished information.

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SELECTED PUBLICATIONS OF INTEREST

ENERGY, MATERIALS, AND INTERNATIONAL SECURITY DIVISION

***Western Surface Mine Permitting and Reclamation**—Examines the methods of predicting and evaluating the success of reclamation practices; the relationship between pre-leasing and post-leasing technological or methodological requirements for environmental protection; the development and use of innovative and emerging reclamation techniques; and the status of monitoring and research on mined land reclamation in the West.

Potential Effects of Section 3 of the Federal Coal Leasing Amendments Act of 1976—Assesses the potential impacts of enforcement of section 3 and the possible consequences of amendment or repeal. Also examines the availability and effectiveness and other mechanisms for promoting timely development of Federal coal leases and analyzes a range of possible legislative alternatives for congressional consideration.

***New Electric Power Technologies: Problems and Prospects for the 1990s**—Examines the development of a series of new technologies encouraged by the Federal Government that offer greater flexibility to utilities. Technologies examined include: utility-controlled load management; fuel cells; advanced coal- and gas-combustion; photovoltaics, solar thermal power, wind, and geothermal.

***U.S. Natural Gas Availability: Gas Supply Through the Year 2000**—Analyzes the key technical and physical parameters that determine the resource base, production rates, and costs of all categories of below-ground natural gas and assesses future technology trends and R&D needs that may accelerate these trends.

***U.S. Vulnerability to an Oil Import Curtailment: The Oil Replacement Curtailment**—Examines the opportunities and problems that characterize various technical responses that could supplement the Strategic Petroleum Reserve to meet a disruption in imported oil.

Environmental Protection in the Federal Coal Leasing Program—Outlines DOI's prelease environmental assessment and planning process, describes how that process was implemented in the five Western coal regions, discusses the issues that have been raised with respect to the adequacy of that process and its implementation and reviews policy options that would allow leasing to proceed in an environmentally compatible manner.

Nuclear Power in an Age of Uncertainty—Examines the future of nuclear power and describes the current technological, economic, financial, public perception, and regulatory problems facing the domestic industry.

Industrial and Commercial Cogeneration—Examines the technical features of commercial and advanced cogeneration technologies, including requirements for connecting cogenerations to the utility grid and technologies for storing thermal or electrical energy.

***Industrial Energy Use**—Examines four American industries (pulp and paper, steel, petroleum refining, and organic chemical production).

***Energy Efficiency of Buildings in Cities**—Focuses on the interaction of technology and policy for new and existing buildings in U.S. cities for the next two decades.

Nuclear Powerplant Standardization: Light Water Reactors—Provides the essential background material for a broad understanding of the nuclear industry, its institutions and their relationship to standardization.

The Future of Liquefied Natural Gas Imports—Evaluates projected U.S. demand, global availability, cost and financing, and security of foreign supplies.

Energy From Biological Processes—Evaluates the energy potential of plant and animal matter.

The Direct Use of Coal: Prospects and Problems of Production and Combustion—Assesses the prospects as well as the environmental, health, safety, and other problems of mining and burning significantly more coal than at present.

***Technology and Structural Unemployment: Reemploying Displaced Adults**—Focuses on technologies, policies, and methods of retraining and reemploying displaced workers; examines the impact of retraining on structural unemployment and on the international competitiveness of U.S. industries.

Displaced Homemakers: Programs and Policy—Interim report focusing on problems and performance of existing Federal support for displaced homemakers.

***Superfund Strategy**—Examines future Superfund needs and how permanent cleanups can be accomplished in a cost-effective manner for diverse types of sites; describes the interactions among many components of the complex Superfund system; and analyzes the consequences of pursuing different strategies for implementing the program.

*Summary available.

***Strategic Materials: Technologies to Reduce U.S. Materials Import Vulnerability**—Identifies major changes in materials vulnerability that are likely to occur over the next 25 years because of advances in such fields as electronics, energy, and transportation.

Wood Use: U.S. Competitiveness and Technology—Surveys forest products industry, domestic demand, and world markets.

***Technologies and Management Strategies for Hazardous Waste Control**—Assesses the criteria for defining hazardous waste and for judging the relative health and environmental hazards of a given waste.

An Assessment of Development and Production Potential of Federal Coal Leases—Analyzes all mining activities, examines present and potential development value, estimates revenues to the Federal Government and deep-mining feasibility on Federal leases.

Technology and Steel Industry Competitiveness—Assesses how and when new technology can improve the international competitiveness of the U.S. steel industry.

An Assessment of Oil Shale Technologies—Assesses the status and potential of technologies for the development of oil shale resources.

***Ballistic Missile Defense Technology**—Examines the potential roles of various levels of BMD deployments in U.S. national defense strategy and the potential implications of BMD for strategic stability and arms control. Also assesses the status of the technologies applicable to BMD.

***Anti-Satellite Weapons, Countermeasures, and Arms Control**—Examines the range of current and potential anti-satellite weapons and countermeasures and discusses a range of potential arms control regimes.

***International Cooperation and Competition in Civilian Space Activities**—Evaluates the current status of international competition and cooperation in key areas of space technology, in space science, and for educational and scientific exchange; assesses ways in which space technologies and their products could be used as instruments of U.S. foreign policy, and examines military space activities insofar as they affect civilian programs and international commercial and political relations.

***Technology Transfer to the Middle East**—Focuses on international competition in Middle East technology trade during the past decade and includes an analysis of future prospects for technology trade.

***International Competitiveness in Electronics**—Examines those factors contributing to the competitiveness of the electronics industry that could most readily be affected by U.S. Government policy.

Technology and East-West Trade—Examines the economic, military, and political implications of technology transfer to the Communist world.

The Effects of Nuclear War—Examines the social, economic, political, and health effects of various levels of nuclear attacks on the United States and the Soviet Union.

Energy Technology Transfer to China: A Technical Memorandum—Addresses the question of whether the flow of U.S. energy technology to China can help to serve U.S. foreign policy and commercial interests.

Remote Sensing and the Private Sector: Issues for Discussion: A Technical Memorandum—Focuses on appropriate requirements and conditions for private sector ownership of the U.S. land remote-sensing system.

UNISPACE '82: A Context for International Cooperation and Competition: A Technical Memorandum—Discusses issues which arose at this conference and their significance.

HEALTH AND LIFE SCIENCES DIVISION

***Alternatives to Animal Use in Research, Testing, and Education**—Examines the current patterns of acquisition and use of animals in the different disciplines of toxicity testing and biomedical and behavioral research. Evaluates the feasibility and cost of developing technologies, and analyzes regulatory testing requirements in both the United States and selected foreign countries to determine whether they can be made more uniform in their acceptance of nonanimal test results.

***Reproductive Health Hazards in the Workplace**—Evaluates the current scientific knowledge base with respect to reproductive hazards in order to outline policy options for the management of reproductive hazards in the workplace.

***Technology and Aging in America**—Assesses the impact of technology in four areas—health and life sciences, employment, housing and public services, and international aspects.

***Commercial Biotechnology: An International Analysis**—Describes the state of the art of biotechnology as applied to industries involved in agriculture, pharmaceuticals, and chemicals.

***The Role of Genetic Testing in the Prevention of Occupational Disease**—Examines questions on the technological state of the art.

***Impacts of Applied Genetics: Micro-Organisms, Plants, and Animals**—Examines the application of classical and molecular genetic technologies to micro-organisms, plants, and animals.

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*Summary available.

*World Population and Fertility Planning Technologies: The Next 20 Years—Examines how Government policies and programs view planned birth technologies, and how new international population assistance has changed world population growth in the last 20 years.

*Technology, Public Policy, and the Changing Structure of American Agriculture—Focuses on future and emerging technologies in other animal, plant, chemical, mechanization, and information areas and their implications for agricultural structure. Also explores linkages between policy and structure for a clearer understanding of the factors that influence the evolution of the agricultural sector.

A Special Report for the 1985 Farm Bill—Focuses on three main policy areas of the reauthorization of the Agriculture and Food Act of 1981: commodity, credit, and research and extension.

*Technologies to Sustain Tropical Forest Resources—Examines the importance of tropical forests to the United States and the world.

*Water-Related Technologies for Sustainable Agriculture in U.S. Arid and Semiarid Lands—Focuses on U.S. and foreign experience.

Impacts of Technology on U.S. Cropland and Rangeland Productivity—Examines the effects of presently used technologies on the capacity of cropland and rangeland resource base to sustain high levels of production.

*Technology and Indian Health Care: Effectiveness, Access, and Efficiency—Analyzes the quality and adequacy of data on Indian health status; identifies the types and distribution of technologies and services available through the Indian Health Service and other providers; determines the desirable range and methods of delivery of health-related technologies and services; and develops policy options to improve the selection, provision, financing, and delivery of technologies and services to Indian populations.

*Payment for Physician Services: Strategies for Medicare—Identifies alternative payment arrangements, i.e., refinements in the present method of paying according to customary, prevailing, and reasonable charges; development of a fee schedule; global payment for packages of related services; and capitation payment for beneficiaries' medical care.

*Medicare's Prospective Payment System: Strategies for Evaluating Cost, Quality, and Medical Technology—Examines Medicare's hospital payment system—prospective payment based on diagnosis-related groups, and the impact of the development and use of medical technology. Identifies the range of possible effects related to medical technology and its use; evaluation measures; ongoing or planned monitoring and evaluation activities; shortcomings and gaps in these activities; and develops an overall design for evaluation, including timing, methodology, priorities, and the role of current or planned efforts.

*Status of Biomedical Research and Related Technology for Tropical Diseases—Examines the status of biomedical and epidemiological research and related technology development in the area of tropical diseases, identifies areas of promise for continued or increased funding, and presents a series of options for making decisions about research funding, technology development and testing, and other policies regarding tropical diseases.

*Preventing Illness and Injury in the Workplace—Develops information about research and development, diffusion, application, and evaluation of workplace control technologies. Engineering controls, worker education programs, personal protective devices, and interrelationships between them and their role in worker protection are evaluated.

*Blood Policy and Technology—Assesses technologies affecting the availability, users, and risks of blood. Areas assessed include blood collection, processing, storage, and distribution; identification, isolation, production, and use of blood components; blood substitutes; and identification and prevention of blood-transmitted diseases and other risks.

*Federal Policies and the Medical Devices Industry—Provides information about the nature of firms that manufacture medical technologies, conducts cases studies of selected medical devices, and examines present and proposed Federal policies that influence the medical devices industry and the cost and effectiveness of medical devices.

*Medical Technology and the Costs of the Medicare Program—Examines the range of policies to contain Medicare costs and impacts on the adoption and use of medical technology.

*Medical Technology Under Proposals To Increase Competition in Health Care—Analyzes the implications for medical technology of two categories of proposals to increase competition.

*Strategies for Medical Technology Assessment—Examines the appropriateness and validity of existing assessment methods, such as controlled clinical trials, epidemiological studies, and consensus exercises.

Technology and Handicapped People—Provides information on general issues, such as the state of the art of evaluating efficacy, safety, and cost.

Africa Tomorrow: Issues in Technology, Agriculture, and U.S. Foreign Aid: A Technical Memorandum—Defines various issues in technology development, technology transfer, and technical assistance which could be considered as an effective strategy to assist African countries in enhancing their food production.

*Summary available

Review of the Public Health Service's Response to AIDS: A Technical Memorandum—Examines a broad overview of the way in which the Federal Government has responded to the current AIDS crisis. Emphasis has been placed on the events and plans developed since the discovery of the agent that causes AIDS.

Procurement and Evaluation of Medical Devices by the Veterans Administration: A Technical Memorandum—Examines the policies of the Veterans Administration regarding evaluation and purchase of medical devices.

Diagnosis-Related Groups (DRGs) and the Medicare Program: Implications for Medical Technology: A Technical Memorandum—Focuses on the increase in the use of new and existing medical technologies with specific emphasis on drugs, devices, and procedures.

Scientific Validity of Polygraph Testing: A Research Review and Evaluation: A Technical Memorandum—Presents the results of the OTA review and assessment of scientific evidence on the validity of polygraph testing.

Quality and Relevance of Research and Related Activities at the Gorgas Memorial Laboratory: A Technical Memorandum—Reviews the quality and relevance of activities at the Gorgas Memorial Laboratory.

Update of Federal Activities Regarding the Use of Pneumococcal Vaccine: A Technical Memorandum—Provides an update on Federal policies related to vaccine and immunization activities.

SCIENCE, INFORMATION, AND NATURAL RESOURCES DIVISION

Federal Government Information Technology: Management, Security, and Congressional Oversight—Examines the issues of: management of information technology, including strategic planning, innovation, procurement, and the information resources management concept; information systems security and computer crime; information technology and decision support; management of government information dissemination; and opportunities for using information technology in conducting congressional oversight.

Federal Government Information Technology: Electronic Surveillance and Civil Liberties—Focuses on technological developments in the basic communication and information infrastructure of the United States that present new or changed opportunities for and vulnerabilities to electronic surveillance.

***Automation of America's Offices**—Analyzes plausible trends in office automation over the next decade; examines the social and economic impacts of its use; and examines the effects of Federal policy options on the further development and use of office technologies in the public and private sectors.

***Information Technology R&D: Critical Trends and Issues**—Analyzes Federal policy, both directly by trends in R&D support and indirectly by tax, antitrust, regulatory, copyright, and education policy.

***Effects of Information Technology on Financial Services Systems**—Examines technologies that are likely to be employed in delivering financial services in the future; the nature of the services that may be provided; and alternative structure of the financial services industry that may emerge as a result of applying new and existing technologies.

***Computerized Manufacturing Automation: Employment, Education, and the Workplace**—Focuses on trends and the state of R&D in computerized manufacturing technologies over this decade; examines the impact the development and use of computerized automation systems will have on employment, education and training, and the workplace.

Informational Technology and Its Impact on American Education—Identifies and projects relevant technology and R&D activity, and the providers and uses of curricula, and educational technology.

***Computer-Based National Information Systems: Technology and Public Policy Issues**—Summarizes and analyzes three U.S. information systems: National Crime Information Center of the FBI, electronic message systems, and electronic funds transfer.

Implications of Electronic Mail and Message Systems for the U.S. Postal Service—Evaluates the impact of electronic message systems (EMS) on operations of the U.S. Postal Service and assesses alternative roles for the Postal Service in provision of EMS and services.

***Oil and Gas Technologies in the Arctic and Deepwater**—Explores the range of technologies required for exploration and development of offshore energy resources and assesses associated economic factors and financial risks. Also evaluates the environmental factors related to energy activities in frontier regions and considers important government regulatory and service programs.

***Managing the Nation's Commercial High-Level Radioactive Waste**—Presents the findings and conclusions of OTA's analysis of Federal policy for the management and disposal of commercial high-level radioactive waste.

***Protecting the Nation's Groundwater From Contamination**—Provides comprehensive examination of the nature and extent of groundwater contamination.

Acid Rain and Transported Air Pollutants: Technology and Public Policy—Examines the potential benefits of acting now to abate long-range transport air pollution and the potential costs of action.

*Summary available.

***Wetlands: Their Use and Regulation**—Presents the findings and conclusions of OTA's analysis of approaches to wetlands use.

An Assessment of Maritime Trade and Technology—Traces prevailing conditions and dominant trends that are important to the way the Government assumes its responsibility in developing and implementing policy.

Use of Models for Water Resources Management, Planning, and Policy—Examines the potential for mathematical models to more effectively and efficiently analyze water resource problems

Technology and Oceanography: An Assessment of Federal Technologies for Oceanographic Research and Monitoring—Identifies the technologies and management systems that are most effective in researching four areas: weather and climate, marine pollution, undersea mineral exploration, and fisheries.

***Airport System Development**—Assesses the technologies to be applied to increase capacity or improve service at airports and the mechanisms by which the technology can be deployed.

***Civilian Space Stations and U.S. Future in Space**—Examines a range of options regarding the development, acquisition, use, and ownership of long-term infrastructure elements in near-Earth space. Also discusses the possible long-range goals and objectives that play a large part in determining these infrastructure elements.

Transportation of Hazardous Materials: State and Local Activities: Special Report—Examines issues of container technology, accident data collection and recordkeeping, and training programs for personnel involved in hazardous materials transportation.

Technology, Innovation, and Regional Economic Development—Identifies and describes the efforts of State and local governments, universities, and private sector groups to promote the creation, expansion, and retention of high-technology firms and industries.

Airport and Air Traffic Control System—Provides a perspective on airport development aid and FAA's proposed air traffic control system modernization.

Review of FAA National Airspace System Plan—Critiques the FAA National Airspace System Plan.

Civilian Space Policy and Applications—Explores Federal involvement in space R&D, when and under what circumstances commercial involvement is appropriate, and how to respond to commercial competition overseas.

Global Models, World Futures, and Public Policy—A Critique—Examines global models as a tool for long-range strategic analysis and policy development.

Impact of Advanced Air Transport Technology—In four parts: 1) examines the impact of introducing or not introducing advanced high-speed aircraft into our future commercial fleet; 2) analyzes air cargo operations; 3) assesses air service to small communities; and 4) examines financing for and alternatives to advanced high-speed aircraft.

***U.S. Passenger Rail Technologies**—Assesses intercity passenger rail technologies, foreign experience with high-speed rail, and the potential impacts of their introduction in the United States.

Changes in the Future Use and Characteristics of the Automobile Transportation System—Describes energy, environmental, safety, and cost impacts of technological changes pertaining to the private car and its supporting systems.

An Assessment of Technology for Local Development—Assesses several prototype technologies, the local problems they may alleviate, and their feasibility and potential impacts.

Review of Postal Automation Strategy: A Technical and Decision Analysis: A Technical Memorandum—Reviews the U.S. Postal Service decision to utilize single-line optical character readers instead of multi-line optical character readers, and conducts a comparative technical economic analysis of the two technologies in the context of the overall postal automation program.

Automation and the Workplace: Selected Labor, Education, and Training Issues: A Technical Memorandum—Examines the impact of automation on employment, and the implications for education and training.

Marine Applications for Fuel Cell Technology: A Technical Memoradum—Evaluates the likely benefits and problems of using fuel cells for propulsion and auxiliary power at sea.

Coal Exports and Port Development: A Technical Memorandum—Addresses four major issues that are important to Federal policy debate: estimating the potential U.S. coal export market, development of foreign trade policy, the Federal role in dredging harbors, and the outlook for alternative technologies.

Ocean Margin Drilling: A Technical Memorandum—Evaluates a proposed public-private cooperative research effort in marine geology.

Recent Developments in Ocean Thermal Energy: A Technical Memorandum—Reviews status of ocean thermal energy conversion (OTEC) developments occurring after OTA's 1978 report on OTEC.

U.S.-Soviet Cooperation in Space: A Technical Memorandum—Explores potential areas of cooperation in space, advantages and disadvantages of working together in those areas, history of cooperation, and methods of cooperation as well as areas of research.

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*Summary available.

Salyut: Soviet Steps Towards Permanent Human Presence in Space: A Technical Memorandum—Examines the major past accomplishments, the current capabilities, and the probable future direction of the Soviet Union's Salyut space station program.

Space Science Research in the United States: A Technical Memorandum—Summarizes and critiques the views of many people interested in space science.

Demographic Trends and the Scientific and Engineering Work Force: A Technical Memorandum—Analyzes the impact of changing population distribution on education and employment in science and engineering.

The Regulatory Environment for Science: A Technical Memorandum—Identifies changes in the research agenda, the practice of science, and the distribution of research results over the past 40 years, and spots emerging issues.

For information on availability and price of these publications, please call OTA's Publishing Office (202) 224-8996

Assessments in Progress as of March 1986

Technology and the American Economic Transition
High-Technology Ceramics and Polymer Composites
Technologies for Prehistoric and Historic Preservation
International Competition in the Service Industries
Reduction of Industrial Hazardous Wastes
Technology Transfer to China
Alternatives for Improving NATO's Defense Response
Technologies To Maintain Biological Diversity
Integrated Renewable Resource Management for U.S. Insular Areas
Low Resource Agriculture in Developing Countries
Evaluation of Agent Orange Protocol
Technologies for Detecting Heritable Mutations
Technologies for Child Health
Life-Sustaining Technologies and the Elderly
Disorders Causing Dementia
New Developments in Biotechnology
Federal Government Information Technology: Key Trends and Policy Issues
Intellectual Property Rights in an Age of Electronics and Information
New Communications Technology: Implications for Privacy and Security
Wastes in the Marine Environment: Their Management and Disposal
Technologies To Control Illegal Drug Traffic
Hazardous Materials Transportation: Technology Issues
Science Policy Special Projects

(NOTE: For brief descriptions of these studies in progress, see OTA booklet on "Assessment Activities"—available from OTA's Publishing Office, 224-8996.)

General Information

Contacts Within OTA

OTA offices are located at 600 Pennsylvania Ave., S.E., Washington, DC.

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Office of the Director	224-3695
Congressional and Public Affairs Office	224-9241
Energy, Materials, and International Security Division	226-2253
Health and Life Sciences Division	226-2260
Science, Information, and Natural Resources Division	226-2253
Administrative Services	224-8712

Reports and Information

To obtain information on availability of published reports, studies, and summaries, call the OTA Publication Request Line (202) 224-8996.

Information on the operation of OTA or the nature and status of ongoing assessments, write or call:

Congressional and Public Affairs Office
Office of Technology Assessment
U.S. Congress
Washington, DC 20510
(202) 224-9241

Other OTA Publications

List of Publications.—Catalogs by subject area all of OTA's published reports with instructions on how to order them.

Assessment Activities.—Contains brief descriptions of recent publications and assessments under way, with estimated dates of completion.

Press Releases.—Announces publication of reports, staff appointments, and other newsworthy activities.

OTA Annual Report.—Details OTA's activities and summarizes reports published during the preceding year.

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